

We claim:

1. A method of obtaining a representation of an image, comprising:

providing a stored set of cellular region representations;

sub-dividing said image into a plurality of cellular regions;

for each cellular region:

comparing image information of said each cellular region to each cellular region representation of a plurality of said cellular region representations; and,

based on said comparison, selecting one cellular region representation of said set of cellular region representations to represent said each cellular region.

2. The method of claim 1 wherein each cellular region representation of said set of cellular region representations comprises pattern information and wherein said image information of said each cellular region comprises pattern information.

3. The method of claim 1 wherein each cellular region representation of said set of cellular region representations comprises a set of values for a parameter set and wherein said image information of said each cellular region comprises a set of values for said parameter set.

4. The method of claim 3 wherein said each cellular region representation is defined as a cosinusoidal pattern.

5. The method of claim 3 or claim 4 wherein said parameter set comprises parameters of ridge angle, ridge spacing and phase offset.

6. The method of any of claims 3 to 5 wherein said each cellular region representation has a set of values for said parameter set different from that of all other cellular region representations of said set of cellular region representations.

7. The method of any of claims 1 to 6 further comprising down-sampling said image to produce a down-sampled image prior to said sub-dividing.
8. The method of any of claims 1 to 7 further comprising storing each selected one of said set of cellular region representations in order to store a representation of said image.
9. The method of any of claims 1 to 8 wherein each of said cellular regions has identical spatial dimensions.
10. The method of any of claims 1 to 9 further comprising associating a quality parameter with one or more of said cellular regions.
11. The method of any of claims 1 to 10 wherein said image comprises a biometric.
12. The method of claim 11 wherein said biometric is a fingerprint.
13. A computer readable medium containing computer executable instructions which, when loaded into a processor, cause said processor to:
 - provide a stored set of cellular region representations;
 - sub-divide said image into a plurality of cellular regions; and,
 - for each cellular region,
 - compare image information of said each cellular region to each cellular region representation of a plurality of said cellular region representations; and,
 - based on said comparison, select one cellular region representation from said set of cellular region representations to represent said each cellular region.
14. Apparatus for obtaining a representation of an image, comprising:
 - a database storing a set of cellular region representations;

an image input; and

a processor operatively coupled to said image input and said database, said processor adapted to:

sub-divide said image into a plurality of cellular regions; and

for each cellular region:

compare image information of said each cellular region to each cellular region representation of a plurality of said cellular region representations and,

based on said comparison, select one cellular region representation from said set of cellular region representations to represent said each cellular region.

15. A method of obtaining a representation of an image, comprising:

providing a stored set of cellular region representations, each cellular region representation comprising a set of values for a parameter set;

sub-dividing said image into a plurality of cellular regions;

for each cellular region:

obtaining a cellular region set of values for said parameter set for said each cellular region and comparing said cellular region set of values to each cellular region representation of a plurality of said cellular region representations; and;

based on said comparison, selecting one cellular region representation of said set of cellular region representations to represent said each cellular region.